Appl. Serial No.: 09/942,117
Attorney Docket No.: SCH-18-2

Reply Dated May 14, 2003

Reply to Office Action of January 14, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Amended) A An isolated protein
- a) that has the ability to bind specifically to the an EDb-fibronectin domains domain;
 - b) that is expressed or activated specifically in <u>an</u> endothelial <u>cells</u> <u>cell</u>;
- c) that is expressed or activated specifically in the a stromal eells cell of a tumor;
 - d) that is expressed or activated specifically in a tumor eells cell;
- e) whose wherein binding of said protein to the EDb-fibronectin domains domain is inhibited by a polypeptide; and
- f) that has an apparent molecular weight of 120-130 kDa for the light chain and 150-160 kDa for the heavy chain, determined by SDS-polyacrylamide gel electrophoresis.
 - 2. (Amended) A The isolated protein according to claim 1
- a) that has the ability to bind specifically to the EDb-fibronectin domains domain, whereby the binding region is characterized by at least one sequence that is selected from the group that comprises SEQ ID NOS: 1-3 comprises the sequence of SEQ ID NO:1;
 - b) that is expressed or activated specifically in <u>an</u> endothelial <u>eells</u> <u>cell</u>;
- c) that is expressed or activated specifically in <u>a</u> stromal <u>cells</u> of a tumor;
 - d) that is expressed or activated specifically in a tumor eells cell;
- e) whose wherein binding to the EDb-fibronectin domains domain is inhibited by a polypeptide that comprises a the sequence that is selected from the group that comprises SEQ ID NOS: 1-3 of SEQ ID NO:1; and
- f) that has an apparent molecular weight of 120-130 kDa for the light chain and 150-160 kDa for the heavy chain, determined by SDS-polyacrylamide gel electrophoresis.



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- 3. (Amended) A The protein, according to claim 1,
- a) that has the ability to bind specifically to the EDb-fibronectin domains domain and that comprises the $\alpha 2\beta 1$ chain of the integrin;
 - b) that is expressed or activated specifically in an endothelial eells cell;
- c) that is expressed or activated specifically in <u>a</u> stromal <u>cells</u> of a tumor;
 - d) that is expressed or activated specifically in a tumor eells cell;
- e) whose wherein binding to the EDb-fibronectin domains domain is inhibited by a polypeptide and that comprises the α chain of the integrin; and
- f) that has an apparent molecular weight of 120-130 kDa for the light chain and 150-160 kDa for the heavy chain, determined by SDS-polyacrylamide gel electrophoresis.
- 4. (Amended) Protein The protein according to claim 1, eharacterized in that wherein the endothelial eells are cell is a proliferating endothelial eells cell.
- 5. (Amended) Proteinwhose specific binding to the EDb-fibronectin domains A protein that mediates the adhesion of an endothelial eells cell, a tumor-stromal eells cell and a tumor eells cell by specifically binding to the EDb-fibronectin domain.
- 6. (Amended) Protein whose specific binding to the EDb-fibronectin domains A protein that mediates the adhesion of an endothelial eells cell, a tumor-stromal eells cell and a tumor eells cell by specifically binding to the EDb-fibronectin domain, whereby the a binding region is characterized by at least one sequence that is selected from the group that comprises SEQ ID NOS: 1-3 of said protein comprises the sequence of SEQ ID NO:1.
- 7. (Amended) Protein The protein according to claim 6, wherein the binding region comprises the $\alpha 2\beta 1$ chain of the integrin.
- 8. (Amended) Protein whose specific binding to the EDb-fibronectin domains A protein that induces the proliferation of an endothelial eells cell by specifically binding to the EDb-fibronectin domain.



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9. (Amended) Protein whose specific binding to the EDb-fibronectin domains A protein that induces the proliferation of an endothelial eells cell by specifically binding to the EDb-fibronectin domain, whereby the a binding region is characterized by at least one sequence that is selected from the group that comprises SEQ ID NOS: 1-3 of said protein comprises the sequence of SEQ ID NO:1.



- 10. (Amended) Protein The protein according to claim 9, wherein the binding region comprises the $\alpha 2\beta 1$ chain of the integrin.
- 11. (Amended) Protein whose specific binding to the EDb-fibronectin domains A protein that induces the proliferation, migration and differentiation of an endothelial cells cell in a collagen matrix by specifically binding to the EDb-fibronectin domain.
- 12. (Amended) Protein whose specific binding to the EDb-fibronectin domains A protein that induces the proliferation, migration and differentiation of an endothelial cells cell in a collagen matrix by specifically binding to the EDb-fibronectin domain, whereby the a binding region is characterized by at least one sequence that is selected from the group that comprises SEQ ID NOS: 1-3 of said protein comprises the sequence of SEQ ID NO:1.
- 13. (Amended) Protein The protein according to claim 12, wherein the binding region comprises the $\alpha 2\beta 1$ chain of the integrin.
- 14. (Amended) Protein A protein that binds to the EDb-fibronectin domains domain and induces a specific signal transduction pathways pathway, whereby at least one gene is induced that codes for a protein that is selected from the group that comprises consisting of
 - -- Focal adhesion kinase,
 - -- CD6 ligand (ALCAM),
 - -- the α chain of the vitronectin receptor,
 - -- the integrated alpha 8 subunit, and
 - -- a/the precursor(s) for follistatin-related protein.

- 15. (Amended) Protein A protein that binds to the EDb-fibronectin domains
 domain and induces a specific signal transduction pathways pathway, whereby at least one
 gene is induced that codes for a protein that is selected from the group that comprises
 consisting of
 - -- Focal adhesion kinase,
 - -- CD6 ligand (ALCAM),
 - -- the α chain of the vitronectin receptor,
 - -- the integrated alpha 8 subunit, and
 - -- a/the precursor(s) for follistatin-related protein,
 d whereby the a binding region is characterized by at least one sequence

and whereby the <u>a</u> binding region is characterized by at least one sequence that is selected from the group that comprises SEQ ID NOS: 1-3 of said protein comprises the sequence of SEQ ID NO:1.



16. (Amended) Protein The protein according to claim 15, wherein the binding region comprises the $\alpha 2\beta 1$ chain of the integrin.

17-55. (withdrawn from consideration)